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## *The Photographic Nebulæ in the Pleiades.*

*(Extract from a Letter from M. P. Henry to Mr. Knobel.)*

Nous avons en effet obtenu sur tous nos clichés des *Pleiades*, de faibles traînées nébuleuses près de *Merope*, mais, ainsi que vous pourrez le voir sur la petite épreuve que j'ai l'honneur de vous envoyer, cette nébuleuse ne ressemble en rien à ce qu'en a donné Tempel. Elle a au contraire beaucoup d'analogie avec ce qu'a vu Mr. Common et qu'il a publié en 1882, je crois, dans les *Monthly Notices.*

Dans la petite carte ci-jointe, comme vous pourrez le voir, j'ai un peu accentué à l'aide d'un crayon blanc, les différentes taches lumineuses qui voisinent *Merope.* C'est la réproduction exacte du cliché original. Ces traces nébuleuses sont extrèmement faibles, et ne viennent que fort peu au tirage sur papier.

On peut voir aussi sur l'original une très-faible trace lumineuse partant d'*Electra* et se dirigeant vers l'Est, mais c'est une limite de visibilité, et il ne nous a pas été possible de l'obtenir en moins de 3 heures de pose ! Je l'ai indiqué à la craie sur l'épreuve, en l'exagérant, bien entendu.

J'avais l'intention avant d'envoyer à la Roy. Ast. Soc. une carte complète des *Pleiades* avec la nébuleuse de *Merope*, d'essayer d'obtenir cette dernière un peu plus intense s'il avait été possible, mais malheureusement le temps n'a pas été suffisamment beau, et nous devrons nous en tenir, jusqu'à l'année prochaine du moins, à ce que nous avons déjà.

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# *Note on some recently published Spectroscopic Observations.*

By E. W. Maunder.

There have been published recently three series of spectroscopic observations to which I should like to draw the special attention of the Society, as each in its own department is of considerable novelty and importance, and it seems to me that it is, on that account, very desirable that they should not take their place among the accepted facts of science without a thorough and searching criticism. It may seem ungracious thus to challenge definite and positive observations; but I need scarcely say that I have not the smallest idea of calling in question the good faith of the observers. My only wish is to draw such attention to the observations referred to as may result in the publication of further details respecting them, or in inducing other observers to make such further researches in the same directions as may confirm or discredit those before us. I am aware that it is not very usual for papers read before the Society to be of a merely critical character; but if the present Note should lead to the bringing out of further and more decisive results, I do not think it will have been useless.

## I. Bright Lines in Stellar Spectra. Mr. O. T. Sherman. *Science*, vol. vi., pp. 262, 336, and 386; *Amer. Jour. of Science*, vol. xxx. pp. 378 and 475; *Astronomische Nachrichten*, Nos. 2707 and 2709.

The first series of observations to which I would ask attention is the detection of bright lines in stellar spectra, by Mr. O. T. Sherman, of Yale College Observatory. The first published observation by Mr. Sherman appeared in the number of *Science* for September 18, 1885, and described the detection of certain bright lines in the spectrum of *Nova Andromedæ*. A second communication furnished the positions of these lines, and I was naturally much gratified to find that Mr. Sherman's determinations agreed with the rough estimations I myself had made, in a manner which was really remarkable when the difficulty of the observation was borne in mind. Mr. Sherman has since examined the spectra of many other stars, beginning with $\beta$ *Lyræ* and $\gamma$ *Cassiopeiæ*. In these two he found not only the bright lines of hydrogen usually seen, but a number of other bright lines, corresponding apparently to the principal lines of the solar chromosphere. In all seventeen bright lines were detected in the spectrum of $\beta$ *Lyræ*.

So far, though Mr. Sherman's results were both interesting and striking, there was nothing on the surface to provoke scepticism. The two stars in question are known to have certain bright lines in their spectra, and it might well be that an observer might detect fresh ones, either by the aid of a special equipment, or by means of an exceptionally keen sight. But Mr. Sherman

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